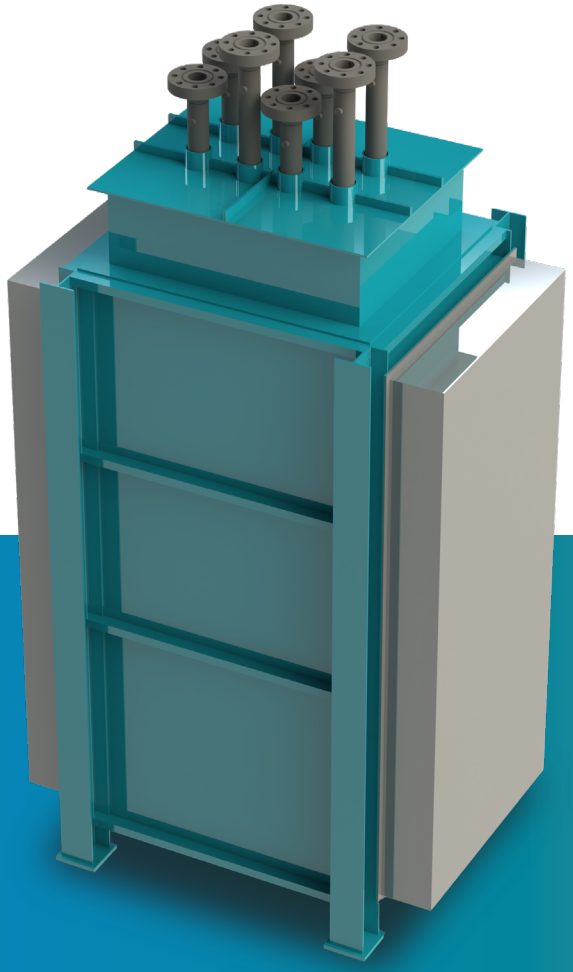
NU:IONIC
TECHNOLOGIES
Electrifying Gas Conversion

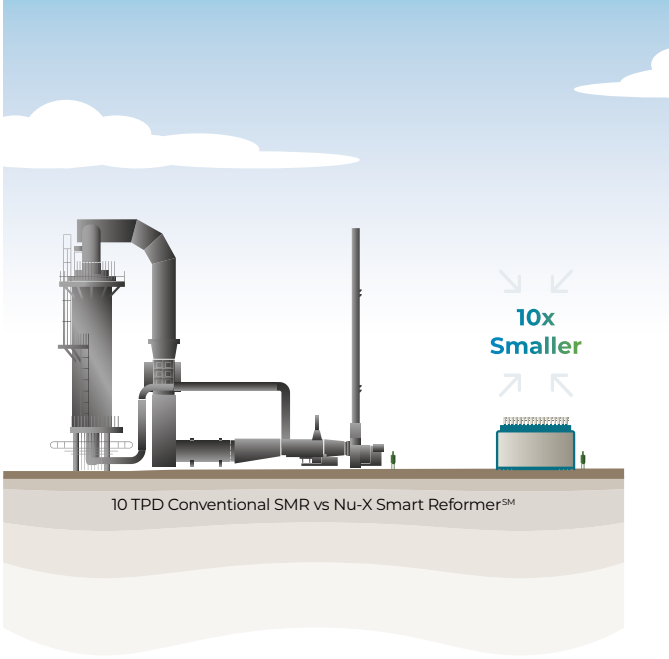


Nu-X Smart Reformer℠

Creating ultra-low carbon Teal Hydrogen™
in a scalable, modular and compact electrified reformer

Small Physical Footprint, Big Environmental Impact

No fired heating furnace, no waste heat boiler, and no stack.



10 TPD Conventional SMR vs Nu-X Smart Reformer℠

Electrified to Eliminate Combustion Emissions

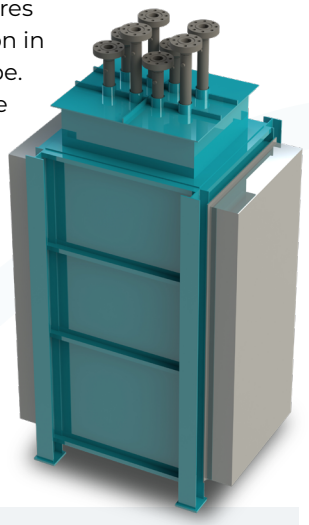
The Nu-X electrified Smart Methane Reforming (Nu-X SMR) technology eliminates combustion in the reformer, avoiding and reducing associated harmful emissions such as CO_2 and criteria air pollutants (NOx, SOx + uncombusted fuel) up to 90% versus conventional H_2 production. The use of electricity reduces natural gas, biogas or methanol feedstock requirements by up to 40%, avoiding harmful upstream emissions associated with natural gas exploration, production and transmission.

The Nu-X Smart Reformer boasts exceptional electrical efficiency of more than 95% and consumes 4X less electricity compared to electrolysis. Modularized, fully integrated systems are available for 1 to 20 TPD of hydrogen production with associated carbon capture systems. Single Nu-X reformers are available for any hydrogen capacity.

Smart & Purposeful

The Nu-X Smart Reformer furnace is designed to operate safely and reliably to the most stringent of industrial standards, with a five-year minor turnaround, 10-year service life on key components.

The proprietary advanced, fundamentals-first state-based process control software layer protects the mechanical integrity of the reformer and ensures reliable and safe operation in a wide operating envelope. Plus, our black-tie remote monitoring service provides peace of mind, ensuring equipment continues to meet performance standards for the full life cycle.



The Nu-X Smart Reformer℠ is...

COMPACT

Modular, ultra-compact and scalable. 10x smaller than the conventional SMR

CLEAN

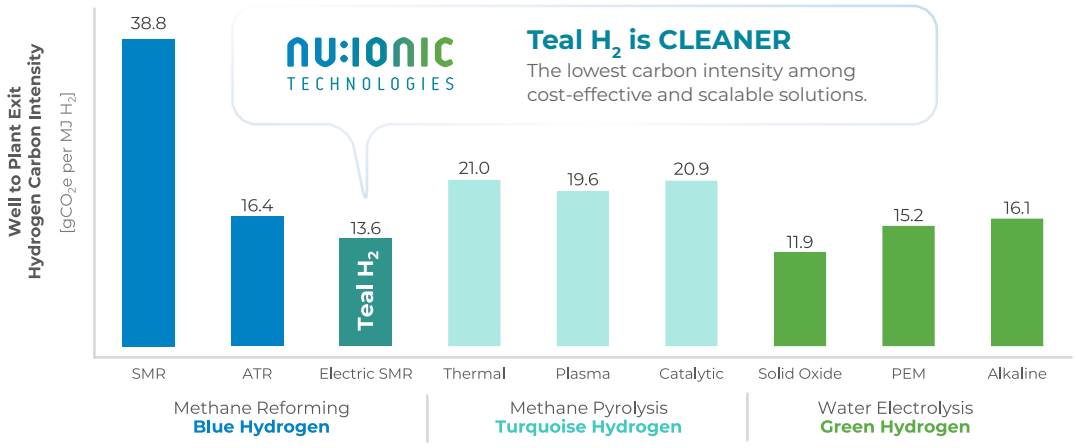
Electric, which eliminates combustion emissions and allows for ultra-low carbon, Teal Hydrogen production

SMART

Smart, with AI-enhanced control software based on a rigorous process model

A Better-than-Blue Hydrogen Alternative

The Nu-X SMR electrifies steam methane reforming, resulting in one of the cleanest pathways to produce hydrogen, as highlighted in a recent CICE study.



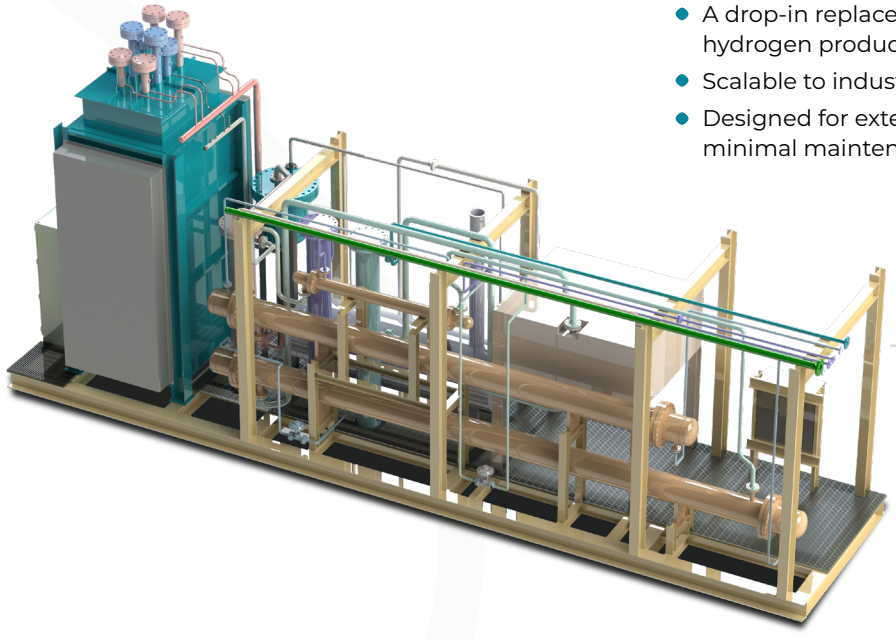
Source: Carbon Intensity of Hydrogen Production Methods - CICE Report March 2023

Challenge Convention, Embrace Innovation

Electrification of the steam methane reforming process results in a highly compact and modular zero-emission reformer design for distributed scale, low-cost and low-carbon Teal Hydrogen production using natural gas, renewable biogas, ammonia or methanol as feedstock.

Compared to conventional SMRs, the Nu-X Smart Reformer is:

- Lower cost with significant savings in equipment count and plot space
- Up to 10x smaller
- Free of Scope 1 emissions
- A drop-in replacement within existing hydrogen production plants
- Scalable to industrial size applications
- Designed for extended uptime and minimal maintenance



Pre-engineered, modularized, fully integrated systems are available from 1 to 20 TPD of hydrogen production with associated carbon capture systems.

Nu:ionic Technologies

is a developer of proprietary technology and equipment that enables process industry customers to realize net-zero goals through electrification and Teal Hydrogen™ production.

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Visit: nuionic.com

XRG Technologies

is an engineering and procurement firm focused on fired and unfired heat transfer equipment for the refining, petrochemical, and power markets.

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Visit: xrgtechnologies.com

Let's Talk!

The Nu-X Smart Reformer is ready for immediate deployment.

Contact us today to learn more about affordable hydrogen production pathways and decarbonization.